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Gender and the Career Aspirations, Professional Assets, and Personal Variables of Higher Education Administrators

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Abstract

A recent national survey found women hold only 23% of higher education institution presidencies (American Council on Education, 2007). However, women now earn 58% of all bachelor's degrees and 45% of all doctorates (U.S. Department of Education, 2005). These findings suggest something may be interfering with the pool of capable women moving through the pipeline to attain higher education administrative positions. Gender differences in career aspirations, professional assets, and various personal variables have been suggested as potential contributors to this disparity. The purpose of the research was to survey women and men holding administrative positions of dean or higher (excluding presidents) within the institutions in the Minnesota State Colleges and Universities (MnSCU) system to examine these potential contributors. Based on the findings, with the exception of geographic mobility, factors other than career aspirations, professional assets, and personal variables may be the cause of barriers to female advancement to high level administrative positions.

Key words: Gender, higher education, career, women

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Introduction

A survey conducted in 2006 by the American Council on Education (2007) indicated that 23% of higher education institution presidents were women. At doctoral-granting institutions, women comprised only 13.8% of presidents. Increasing the number of female administrators and thus decreasing this gender disparity in higher education leadership has been recognized as critically important (Nidiffer, 2001; Touchton, Shavlik, & Davis, 1993). As Harrow (1993) argued, "Leadership, when dominated by one segment of society, suffers from a narrow perspective, a lack of richness of ideas and ideals" (p. 146). Indeed, college and university policies often indicate a commitment to the issues of diversity, equity, and opportunity and this gender disparity that exists today can be seen as one measure of the effectiveness of this commitment.

A number of authors have argued that women will increase in number at the highest ranks of the academy over time as larger numbers of female undergraduate and graduate students make their way through the academic pipeline to create a larger pool of women available for such positions (Camp, 1997; Kulis, Sicotte, & Collins, 2002; McBride, 2002). However, women have been earning over 40% of doctorates since 1996 (Hoffer et al., 2006) and today earn 58% of all bachelor's degrees and 45% of all doctorates (U.S. Department of Education, 2005).

White (2005) found that despite the growing numbers of women earning doctorates, the number of women in full professorships does not reflect this increase. Only 19.3% of full professor tenured positions at doctoral degree-granting institutions, 28.3% at master's degree-granting institutions, and 46.9% at associate's degree-granting institutions are held by women (American Association of University Professors, 2006). Despite the large number of women earning doctorates, they are not appearing in comparable numbers in the professoriate. Additionally, while the number of women faculty has increased in the last 30 years, the largest increases have been in part-time and non tenure-track positions (Chronister, Gansneder, Harper, & Baldwin, 1997; Lomperis, 1990). Birnbaum and Umbach (2001) used survey data from 2,297 university presidents in 1995 and found 66.3% of college presidents came to their positions through a traditional career path of a scholar moving up through the academic ranks. Because women are not advancing in the professoriate, it may be that much more difficult for them to attain high level leadership positions such as the presidency.

While these numbers suggest women are not making it to key levels in academia to be in position for further advancement, they also indicate a disparity between the number of females in the professoriate and the number of female presidents. Additionally, no research was found in the literature regarding potential leaks and blockages in the pipeline once women attain the higher education administration position of dean or higher. Therefore, I sought to examine the pipeline between these two points in higher education administration.

For the last three decades, there has been much research regarding the academic pipeline (Blickenstaff, 2005; Perna, 2001; White, 2005) with many studies looking for potential blockages in the pipeline such as discrimination (American Council on Education, 2005) or leaks due to gender differences among factors such as career aspirations, professional assets, and personal variables.

Career Aspirations

Career aspirations include the positional goals that administrators strive to achieve, the leadership styles that they believe they must use to advance, and career commitments or what they hope to accomplish in their careers (Young & McLeod, 2001). This section explores these three areas of career aspiration and how they impact women in higher education.

Positional Goals

One factor potentially affecting the number of women in high level administrative positions in the academy is positional goals, which are the types of positions they are interested in pursuing. Do women actually want to achieve high level leadership positions?

Three studies have indicated the possibility that women have lower positional goal aspirations than men in higher education. Shultz and Easter (1997) surveyed 170 faculty members at a public, mid-sized university in the eastern United States to compare the aspirations and obstacles perceived by men and women. More women aspired to middle level administrative positions of director, coordinator, department chair, and academic dean than men. Aspirations for the position of vice president were almost equal for men (16%) and women (15%), however aspirations to the presidency were higher among men (10%) than women (7%).

Wolverton and Gonzales (2000) found similar results in a national study of deans. Twenty-three percent of women deans planned to seek a higher level academic leadership position, while 28% of men said the same. In both of these studies, the differences cited were slight, descriptive in nature, and not tested statistically. Therefore it is unclear if these percentage differences represent real differences or natural variations expected by chance.

In a more recent study of 1,715 responding chief academic officers (Eckel, Cook, & King, 2009), fewer women (25%) than men (33%) aspired to the presidency. While this finding was also not tested for significance, the number of respondents suggests a stronger possibility of a significant difference in men's and women's desire to be president.

Leadership Style and Abilities

Some research has found that women exhibit different leadership styles, priorities, and qualities than men in leadership positions (Astin & Leland, 1991; Helgesen, 1995; Kezar, 2000). Helgesen (1995) found that women set aside time for sharing information within the organization, whereas men did not as easily share information with others. Women viewed themselves and their roles in life as complex and multidimensional, however, men primarily viewed themselves through their jobs and position.

However in 1987, Bayes studied women and men in high level leadership positions in the federal government. This study found that that women and men had similar views of leadership style, and that they acted similarly in comparable situations. A gender difference was found in only one area – dedication to work. Women were perceived to work harder than men (Bayes, 1987).

Even though women may have different leadership styles than men (Astin & Leland, 1991; Helgesen, 1995; Kezar, 2000), their effectiveness as leaders may not be so different (Rosser, 2001). Rosser (2001) asked faculty and staff to evaluate the effectiveness and leadership performance of 22 deans (16 males, 6 females) at a major research university. The 865 respondents rated the female deans to be more effective than the male deans in all areas, including communication skills, research, community, professional endeavors, interpersonal relations, and the management of the unit.

Career Commitments

Career commitments are what people hope to accomplish during their careers. In a study of academic deans, Gmelch, Wolverton, Wolverton, and Hermanson (1996) found that men's and women's career commitments, or why they took the job of dean, differed. More women than men listed reasons such as contribute to and improve the college, personal growth, and help faculty develop. More men than women listed reasons such as advance career, financial gain, power, and control. If what is expected of higher education administrators matches more closely to male career commitments this might impact the disparity in advancement.

Professional Assets

The advancement of women's careers has been shown to be affected by several professional variables or assets, which include career planning, mentoring, networking, and leadership training. This section details the research in these four areas.

Career Planning

Career planning has been defined as having a goal and a plan for how to achieve that goal. Research has shown that career planning has a positive effect on women's career development and advancement (Hirsch, 1994), as well as on the achievement of high level leadership positions in higher education (LeBlanc, 1993; Touchton et al., 1993). No studies were found comparing the rates or nature of male and female career planning in higher education, which if such differences exist, could impact the disparity in advancement. If males, for example, have the presidency as a specific goal at greater frequency and earlier in their careers than females, this might help explain the disparity.

Mentors

Mentoring has been viewed as a vital strategy for women in higher education, while a lack of mentoring is construed as a barrier (Cullen & Luna, 1993; Nies & Wolverton, 2000; Ragins & Cotton, 1993; Scanlon, 1997). Women in higher education who have been mentored have been shown to attain higher levels of career advancement than women who have not had mentors (Maack & Passet, 1994). Brown (2005), in a study of 91 female college presidents, found that the majority had primary mentors and were also mentors to others. Nies and Wolverton (2000) found in a national survey of academic deans that 55% had mentors. "From tenure to other career advancement processes, mentoring can be critical in assisting potential

deans through the often confusing process of academic advancement” (p. 12). It would be valuable to know if there are gender differences in the rate and nature of mentoring as this could influence female advancement.

Networking

Networking refers to relationships with others for the express purpose of information sharing, and it differs from mentoring in that it typically includes people both inside and outside of the organization as well as people of all levels and positions (Nies & Wolverton, 2000). Some researchers have found that up 75% of all jobs are attained through networking (Heim & Golant, 1993). For higher education administrators, networking entails getting to know administrators from other colleges and universities, going to conferences, and fulfilling leadership roles (O’Leary & Mitchell, 1990). In addition, networks can be nurtured through many types of organizations, such as business, academic, professional, political, and women’s groups. In a national study of academic deans, Nies and Wolverton (2000) found that female deans tended to use their networks to cope with frustrations and to explore ideas, whereas men tended to use their networks when making difficult personal choices or decisions.

Leadership Training

Researchers have suggested that leadership training is important to career advancement of higher education administrators (McDade, 1990; Touchton et al., 1993). Harrow (1993) recommended that women administrators “take every opportunity to practice and reflect upon leadership skills of communications, negotiations, analytical thinking, decision making, conflict resolution, political posturing, and analysis” (p. 156). In a national study of chief academic officers, 37% of women and 24% of men reported that they have participated in formal leadership programs (Eckel, Cook, & King, 2009).

Personal Variables

Personal variables such as gender, marriage and childrearing, and geographic mobility might differentially affect men and women and can possibly act as barriers to the development and advancement of women’s careers in higher education.

Gender

Researchers have demonstrated ways in which gender bias (Ayman, 1993), gender role stereotypes, and biased promotional practices have played a role in the low numbers of women in management positions in various settings (Astin & Leland, 1991; Buttner, 2001; Moore & Buttner, 1997; Payne, Fuqua, & Canegami, 1997; Swanson, 2000). In higher education specifically, Valian (1998) reviewed the literature and stated, “The data demonstrate that women in academia are substantially underrewarded. They are paid less, promoted more slowly, and tenured more slowly” (p. 248).

Marriage and Children

Marriage and children have been found to have more detrimental impact on the career advancement of women. In a study of doctoral recipients from 1973 to 1999, Mason and Goulden (2002) found women were less likely to achieve tenure when they had babies early in their careers as compared to men with similar family circumstances. Also, women with tenure were less likely to have children and twice as likely to be single. This study also found that 59% of married women with children were considering leaving the academy, and were more likely to indicate that children were one of the reasons why. Indeed, one of the most significant differences found between male and female presidents is that 89% of men are married while 63% of women are married. Additionally, three percent of men never married, while 10% of women never married. Consistent with the differences in marital status, 91% of male presidents have children, while 68% of female presidents have children (American Council on Education, 2007).

Household and childrearing responsibilities have been found to affect male and female faculty differently, with female faculty shown to spend significantly more time on household and child-related activities than male faculty (Suitor, Mecom, & Feld, 2001). Dey (1994) found that these issues are more significant sources of stress for faculty women than for faculty men. Additionally, only one-third of men stated that they felt overwhelmed by attempting to balance child care needs and their jobs, while two-thirds of women faculty reported feeling overwhelmed for the same reason (Riemenschneider & Harper, 1990).

Geographic Mobility

Career advancement can often mean having to move to accept a new position. "Not just actual mobility, but also being perceived as potentially mobile can enhance career progress," (Rosenfeld & Jones, 1987, p. 493). Rosenfeld and Jones found that academic women were less likely to move than men, primarily at the beginning of their careers to their first jobs. After the first position, geographic mobility was similar for both men and women (Rosenfeld & Jones, 1987). Shauman and Xie (1996) found that female academics with children are more geographically constrained than academics who are male and/or child free.

Purpose of the Study

Women continue to be underrepresented at the highest levels of higher education administration (American Council on Education, 2007). Research on the low number of women presidents has primarily examined the career paths and histories of current or previous presidents. Three studies did suggest potential gender differences in career aspirations, but did not test these specific findings for statistical significance (Eckel, Cook, & King, 2009; Shultz & Easter, 1997; Wolverton & Gonzolas, 2000). Professional assets and personal variables have also been suggested as possible contributors to the gender disparity in higher education administration. The purpose of the study was to compare the career aspirations, professional assets, and personal variables of women and men who are currently in positions that could potentially lead to college and university presidencies to see if any gender difference exist.

Method

Participants

The participants of this study were individuals in positions of dean or higher (excluding presidents) from the Minnesota State Colleges and Universities (MnSCU) system. Of the 389 invited to participate in the study via an electronic survey, it is estimated that 196 (50.4%) of the 389 administrators in the population were female based upon assumptions of typically-gendered first names. Respondents included 155 (39.8%) administrators from which 139 (35.7%) valid responses were obtained. The 139 cases included 60.4% females and 39.6% males. The participants ranged in age from 32 to 69 years, with a mean age of 51. Ninety-seven percent identified as Caucasian/White (Non-Hispanic), and three percent identified as African-American/Black (Non-Hispanic), American Indian/Native American, Asian American/Pacific Islander, or chose not to respond to the question. Seventy-one percent of the respondents were from two-year community and/or technical colleges, while 29% were employed at four year universities within the MnSCU system.

The MnSCU system is comprised of seven state universities, five community colleges, seven technical colleges, 13 combined technical and community colleges, and is the sixth-largest system of its kind in the country (MnSCU, 2007). The percentage of female presidents in the MnSCU system were similar to that of national statistics for similar institutions. Of the seven state universities, one of the seven presidents was female (14.3%). Nationally, women hold 21.5% of presidencies at master's institutions (American Council on Education, 2007). Of the remaining two-year institutions, eight out of 26 presidents were female (30.8%). Nationally, women hold 28.8% of presidencies at associate's institutions (American Council on Education, 2007).

Instrument

I developed the instrument for my study. The items on the instrument initially were created based upon a review of the literature and specifically were influenced by items used in a national survey of women chief academic officers conducted by Dean (2004). The questionnaire consisted of 48 items, including demographic information, questions based upon the research hypotheses, and exploratory questions. The items were designed to measure the career aspirations, professional assets, and personal variables of the participants. The instrument was piloted in its online format by three associate deans in the MnSCU system. It was then modified to clarify questions and add in missing items based upon feedback from the pilot study. The internal consistency of the instrument was not tested.

Procedures

A list of names, titles, and electronic mail addresses were obtained from the MnSCU Chancellor's Office to determine the population of administrators at the level of dean or higher (excluding presidents) in the MnSCU system. The data were reviewed for accuracy, and people who did not meet the criteria of the population were deleted from the list. Potential participants were emailed a request to participate, consent form, and hyperlink for the survey. Two weeks

after the initial request, a follow-up email was sent to the administrators. Data were collected over a total of three weeks during the spring of 2008. The data were then compiled and analyzed using SPSS software to address the research questions and hypotheses.

Research Questions

Three research questions were examined by testing six null hypotheses.

Research Question 1: Do females and males differ in their career aspirations?

H1. Females and males will not differ in their desire to advance to a higher administrative position.

H2. Females and males will not differ in their perceptions of the degree to which they would need to change their leadership style to advance to a higher administrative position.

Research Question 2: Do females and males differ in their professional assets?

H3. Females and males will not differ in their level of career planning.

H4. Females and males will not differ in their number of current mentors.

H5. Females and males will not differ in their participation in programs designed to enhance leadership skills.

Research Question 3: Do females and males differ in their perceptions of the influence of their personal characteristics on their career plans?

H6. Females and males will not differ in their perceptions of the influence of five personal characteristics (gender, marital status, number of children, age, and geographic mobility) on their career plans.

Results

All data were screened for missing cases and outliers, and the satisfaction of the assumptions of normality and linearity were evaluated and met prior to statistical analysis. A Bonferroni correction was calculated for hypotheses one through five, requiring a $p < .01$ to be obtained for significance.

Research Question 1

Research Question 1 asked if females and males differ in their career aspirations. Two null hypotheses were tested to address this question.

Hypothesis 1

A chi-square test of independence was conducted to determine if females and males differed in their desire to advance to a higher administrative position. The analysis indicated $X^2(1, N = 131) = .29; p > .01, phi = .047$, therefore the null hypothesis was not rejected. Females and males did not differ in their desire to advance to a higher administrative position.

Sixty-seven individuals aspired to higher administrative positions. A second chi-square test of independence was conducted to determine if the 67 females and males who aspired to a higher administrative position differed in their desire to be president. Of those 67, twenty-eight individuals indicated a desire to be president (12 females, 16 males). The analysis indicated $X^2(1, N = 67) = 2.288; p > .01, phi = .185$, so females and males did not differ in their desire to be president.

Hypothesis 2

A Mann Whitney *U* test was conducted to determine if females and males differed in their perceptions of the degree to which they would need to change their leadership style to advance to a higher administrative position. The analysis indicated $U = 1965.5; z = -.901; p > .01, \eta^2 = .006$, therefore the null hypothesis was not rejected. Females and males did not differ in their perceptions of the degree to which they would need to change their leadership style to advance to a higher administrative position.

Research Question 2

Null hypotheses 3, 4, and 5 were developed to examine whether females and males differ in their professional assets. These hypotheses were tested to address three categories of professional assets, including level of career planning, number of current mentors, and participation in leadership development programs.

Hypothesis 3

A chi-square test of independence was conducted to determine if females and males differed in their level of career planning. The analysis indicated $X^2(2, N = 139) = .133; p > .01, phi = .031$, therefore the null hypothesis was not rejected. Females and males did not differ in their level of career plan development.

Hypothesis 4

An independent groups t-test was conducted to determine if females and males differed in the number of current mentors. The analysis indicated that the calculated $t(133) = 1.745, p > .01, d = .328$, therefore the null hypothesis was not rejected. Females and males did not differ in the number of current mentors ($M = 1.19$ for females; $M = .87$ for males).

Hypothesis 5

A chi-square test of independence was conducted to determine if females and males differed in their participation in leadership development programs. The analysis indicated $X^2(1, N = 138) = 4.943; p = .026, phi = -.189$, but not less than .01. No significant difference was found with the Bonferonni correction, although this result appears to approach significance. While a more powerful analysis might indicate a difference, this result indicates females and males did not differ in their reported rate of participation in leadership development programs.

Research Question 3

Research Question 3 examined if females and males differ in their perceptions of the influence of their personal variables on their career plans. One hypothesis was tested to address the research question.

Hypothesis 6

A stepwise two-group discriminant analysis was conducted to determine what, if any, combination of the participants’ perceptions of the influence of five different personal variables on their career plans could be used to predict their gender. All five variables were analyzed and included gender, marital status, number of children, age, and geographic mobility. Stevens (1992) indicated that the ratio of total sample size to the number of variables must be approximately 20 to 1 to maintain the integrity of the discriminant analysis. The ratio in this analysis was 26 to 1.

The analysis generated only one function that was significant, $\Lambda = .960$, $X^2(1, N = 131) = 5.413$, $p < .05$, with 4.04% of the function variability explained by the influence of geographic mobility on career plans. Females perceived geographic mobility as having a more negative influence on their career plans than males. None of the other four personal variables were perceived to impact career plans differently for females and males. Table 1 displays these results.

Table 1
Hypothesis 6: Results of the Stepwise Discriminant Analysis

Tests of Equality of Group Means					
Personal Characteristic	Wilks’ Lambda (Λ)	F	df1	df2	Sig.
Gender	0.997	0.421	1	129	.517
Marital status	0.975	3.370	1	129	.069
Number of children	0.999	0.149	1	129	.700
Age	0.999	0.086	1	129	.770
Geographic mobility	0.960	5.413	1	129	.022

Summary of the Results

The results found no difference in the career aspirations or professional assets of female and male participants. A difference in one of the five personal variables, geographic mobility, was found indicating that women felt more constrained in their career mobility.

Discussion

Career Aspirations

One reason suggested for the gender disparity in higher education administration has been that women have lower aspirations for such positions as compared to men (Eckel, Cook, & King, 2009; Schultz & Easter, 1997; Wolverton & Gonzales, 2000). Results of my study indicate that females and males did not differ in their desire to advance to a higher administrative position. Additional analysis indicated there was also no gender difference for those individuals who specifically aspired to the presidency. Researchers (Eckel, Cook, & King, 2009; Shultz & Easter, 1997; Wolverton & Gonzales, 2000) found that women have lower positional goal aspirations than men and that fewer women than men aspired to the highest level of leadership positions, but none of those researchers tested these specific results for significance. The results of my study found no such difference and instead found that the number of female and male administrators in the MnSCU system who desired to advance in general or to be president specifically were similar. These findings suggest that the academic pipeline is not leaking due to women not aspiring to higher education administration positions at the same rates as men.

In Hypothesis 2, I examined whether participants would differ by gender in their perception of the degree to which they felt they would need to change their leadership style to advance to a higher administrative position. The results indicated that females and males did not differ. This finding suggests that the academic pipeline is not leaking by females believing they would have to more dramatically change their leadership styles to successfully advance as compared to their male colleagues.

Professional Assets

Career planning has been found to have a positive impact on women's career advancement (Hirsch, 1994) and is helpful in achieving high level leadership positions in the higher education setting (LeBlanc, 1993; Touchton et al., 1993). Hypothesis 3 resulted in the fact that females and males did not differ in their level of career planning suggesting the gender disparity may not be due to women having less clear goals and plans to advance.

Mentoring has also been found to play an important role in career development in the academy, while a lack of mentoring is seen as a barrier (Cullen & Luna, 1993; Nies & Wolverton, 2000; Ragins & Cotton, 1993; Scanlon, 1997). In Hypothesis 4, I found that females and males did not differ in their number of current mentors and therefore lack of mentors may not be contributing to the gender disparity in higher education administration.

Leadership development training has been recognized as important to higher education administration advancement (McDade, 1990; Touchton et al., 1993). No gender difference in the reported rate of participation in leadership development programs was found in Hypothesis 5. However, the results appear to have approached significance and therefore may suggest women participate more in leadership development. Either way, the gender disparity in the presidency

does not seem to be influenced by a lack of female participation in leadership development training.

According to the results of my study, it appears that the academic pipeline is not leaking due to women lacking these key professional assets. Indeed, the level of career planning and number of current mentors is no different by gender, and women may actually have an advantage when it comes to leadership development preparation although this is yet to be demonstrated.

Personal Variables

Personal variables have been researched and suggested to potentially contribute to the gender disparity in female administrative advancement. The results of this study suggest that of five personal variables examined, only geographic mobility may play a significant differential and potentially inhibitive role for female advancement. However, this role may be relatively minor as the results indicated only a small degree of difference. This finding is consistent with prior research by Rosenfeld and Jones (1987), who found that academic women were not as geographically mobile as academic men. Women may be slightly more constrained in their mobility, and this may play a part in the leaking of the academic pipeline.

Limitations and Recommendations for Future Research

Several limitations of this study are important to consider when interpreting these results. First, the self-reported nature of the data is a limitation. Because this data was collected from a survey, there is the possibility that self-reported perceptions do not match reality. It would be helpful to gather other forms of evidence to either corroborate or contradict self-report evidence. Second, while the quantity of factors such as the number of mentors was measured, significant differences may still lie in the qualitative nature of such variables. It would be helpful to explore these variables in more depth by, for example, more closely examining the nature of the mentoring relationships that female and male administrators experience. Finally, there may be qualities unique to the sample in this study which inhibit generalization to other higher education administrators. A national study examining these questions could therefore add valuable insight and strengthen the external validity of any findings.

Conclusion

Women continue to be significantly underrepresented at the highest levels of higher education administration. The results of this study indicate that, with the exception of the personal variable of feeling more constrained by geographic mobility, female administrators do not differ from males in their aspirations to advance or their level of certain professional assets. These findings provide increased evidential support that the academic pipeline from dean to the president may not be leaking through characteristics or choices that are unique to females. Rather, these results suggest that the problem may more likely lie in blockages, such as institutional and societal barriers. Therefore, closer scrutiny and more vigorous challenge may be warranted of such blockages if the gender disparity in higher education administration is to improve.

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Biography

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